

[illegible]

PTO/SB/05 (03-01)  
Approved for use through 10/31/2002. OMB 0651-0032  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
to respond to a collection of information unless it displays a valid OMB control  
number.

PTO/SB/05 (03-01)

Approved for use through 10/31/2002. OMB C

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>UTILITY PATENT APPLICATION TRANSMITTAL</b> <small>(Only for new nonprovisional applications under 37 CFR 1.53(b))</small>		Attorney Docket    PC009C1 First Inventor    Rosen et al. Title    Nucleic Acids, Proteins, and Antibodies Express Mail Label	
---	--	--	--

<b>APPLICATION ELEMENTS</b> See MPEP chapter 600 concerning utility patent application contents.	<b>ADDRESS TO:</b> Box Patent Application Commissioner for Patents Washington, DC 20231
---	---

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)  
(Submit an original, and a duplicate for fee processing)

2. ☐ Applicant claims small entity status.  
 See 37 CFR 1.27.

3. ☒ Specification                      [Total Pages    641    ]  
(preferred arrangement set forth below)

- Descriptive title of the invention
- Cross Reference to Related Applications
- Statement Regarding Fed sponsored R & D
- Reference to sequence listing, a table, or a computer program listing appendix
- Background of the Invention
- Brief Summary of the Invention
- Brief Description of the Drawings (if filed)
- Detailed Description
- Claim(s)
- Abstract of the Disclosure

4. ☐ Drawing(s) (35 U.S.C. 113)                      [Total Sheets       ]

5. Oath or Declaration                      [Total Pages    5    ]

a. ☐ Newly executed (original or copy)

b. ☒ Copy from a prior application (37 CFR 1.63(d))  
(for continuation/divisional with Box 18 completed)

i. ☐ **DELETION OF INVENTOR(S)**  
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).

6. ☒ Application Data Sheet See 37 CFR 1.76 (7 pages)

7. ☐ CD-ROM or CD-R in duplicate, large table or Comouter Program (Appendix)

8. Nucleotide and/or Amino Acid Sequence Submission  
(if applicable, all necessary)

a. ☒ Computer Readable Form (CRF)

b. Specification Sequence Listing on:

i. ☒ CD-ROM or CD-R (2 copies); or    ii. ☐ paper

c. ☒ Statements verifying identity of above copies

ACCOMPANYING APPLICATIONS PARTS	
9. <input type="checkbox"/> Assignment Papers (cover sheet & document(s)) 10. <input type="checkbox"/> 37 CFR § 73(b) Statement <input checked="" type="checkbox"/> Associate Power of Attorney <small>(when there is an assignee)</small> 11. <input type="checkbox"/> English Translation Document (if applicable) 12. <input type="checkbox"/> Information Disclosure Statement (IDS)/PTO-1449 <input type="checkbox"/> Copies of IDS Citations 13. <input type="checkbox"/> Preliminary Amendment 14. <input checked="" type="checkbox"/> Return Receipt Postcard (MPEP 503) <small>(Should be specifically itemized)</small> 15. <input type="checkbox"/> Certified Copy of Priority Document(s) <small>(if foreign priority is claimed)</small> 16. <input type="checkbox"/> Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). <small>Applicant must attach form PTO/SB/35 or its equivalent</small> 17. <input checked="" type="checkbox"/> Other:	1. Statement Under 37 C.F.R. § 1.821 2. Transmittal and Submission Under 37 C.F.R. §§ 1.824 and 1.52(e)

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

☒ Continuation    ☐ Divisional    ☐ Continuation-in-part (CIP)    of prior application No.:    09/764,847

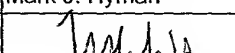
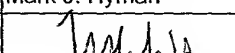
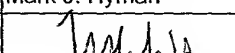
Prior application information: Examiner    Clow, L.    Group / Art Unit:    1631

**For CONTINUING or DIVISIONAL APPS only:** The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference.

19. CORRESPONDENCE ADDRESS			
<input checked="" type="checkbox"/> Customer Number or Bar Code Label	<b>22195</b>	or <input type="checkbox"/>	Correspondence address below
Name			
Address			
City	State	Zip Code	
Country	Telephone	Fax	

Name (Print/Type)	Mark J. Hyman	Registration No. (Attorney/Agent)	46,789
Signature		Date	March 7, 2002

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>FEE TRANSMITTAL for FY 2002</b>				<b>Complete if Known</b>																																																																																																																																																																																																																																																																																																																																																															
<i>Patent fees are subject to annual revision.</i>				Application Number	Not Yet Assigned																																																																																																																																																																																																																																																																																																																																																														
<input type="checkbox"/> Application claims small entity status. See 37 CFR 1.27				Filing Date	Herewith																																																																																																																																																																																																																																																																																																																																																														
<b>TOTAL AMOUNT OF PAYMENT</b> (\$) <b>896.00</b>				First Named Inventor	Rosen et al.																																																																																																																																																																																																																																																																																																																																																														
				Examiner Name	Not Yet Assigned																																																																																																																																																																																																																																																																																																																																																														
				Group Art Unit	Not Yet Assigned																																																																																																																																																																																																																																																																																																																																																														
				Attorney Docket No.	PC009C1																																																																																																																																																																																																																																																																																																																																																														
<b>METHOD OF PAYMENT</b> (check all that apply)				<b>FEE CALCULATION</b> (continued)																																																																																																																																																																																																																																																																																																																																																															
<input type="checkbox"/> Check <input type="checkbox"/> Credit Card <input type="checkbox"/> Money Order <input type="checkbox"/> Other <input type="checkbox"/> None <input checked="" type="checkbox"/> Deposit Account				<b>3. ADDITIONAL FEES</b>  <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for ex parte reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1,840*</td><td>113</td><td>1,840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for reply within first month</td><td></td></tr> <tr><td>116</td><td>400</td><td>216</td><td>200</td><td>Extension for reply within second month</td><td></td></tr> <tr><td>117</td><td>920</td><td>217</td><td>460</td><td>Extension for reply within third month</td><td></td></tr> <tr><td>118</td><td>1,440</td><td>218</td><td>720</td><td>Extension for reply within fourth month</td><td></td></tr> <tr><td>128</td><td>1,960</td><td>228</td><td>980</td><td>Extension for reply within fifth month</td><td></td></tr> <tr><td>119</td><td>320</td><td>219</td><td>160</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>320</td><td>220</td><td>160</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>280</td><td>221</td><td>140</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive - unavoidable</td><td></td></tr> <tr><td>141</td><td>1,280</td><td>241</td><td>640</td><td>Petition to revive - unintentional</td><td></td></tr> <tr><td>142</td><td>1,280</td><td>242</td><td>640</td><td>Utility issue fee (or reissue)</td><td></td></tr> <tr><td>143</td><td>460</td><td>243</td><td>230</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>620</td><td>244</td><td>310</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petitions to the Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Processing fee under 37 CFR 1.17(q)</td><td></td></tr> <tr><td>126</td><td>180</td><td>126</td><td>180</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment per prooerty (times number of prooerties)</td><td></td></tr> <tr><td>146</td><td>740</td><td>246</td><td>370</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>149</td><td>740</td><td>249</td><td>370</td><td>For each additional invention to be examined (37CFR 1.129(h))</td><td></td></tr> <tr><td>179</td><td>740</td><td>279</td><td>370</td><td>Request for Continued Examination (RCE)</td><td></td></tr> <tr><td>169</td><td>900</td><td>169</td><td>900</td><td>Request for expedited examination of a design application</td><td></td></tr> <tr><td colspan="6" style="padding: 5px;">Other fee (specify) _____</td></tr> <tr> <td colspan="4" style="padding: 5px;"><b>1. BASIC FILING FEE</b></td> <td colspan="2" style="padding: 5px;"><b>2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</b></td> </tr> <tr> <td colspan="4" style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>101</td><td>740</td><td>201</td><td>370</td><td>Utility filing fee</td><td>740.00</td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>510</td><td>207</td><td>255</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>740</td><td>208</td><td>370</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>160</td><td>214</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (1)</b></td><td><b>740.00</b></td></tr> </tbody> </table> </td> <td colspan="2" style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Total Claims</td> <td>24</td> <td>-20** =</td> <td>4</td> <td>x</td> <td>18.00</td> <td>=</td> <td>72.00</td> </tr> <tr> <td>Independent Claims</td> <td>4</td> <td>-3** =</td> <td>1</td> <td>x</td> <td>84.00</td> <td>=</td> <td>84.00</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>=</td> <td></td> </tr> <tr> <td colspan="7" style="text-align: right;"><b>SUBTOTAL (2)</b></td> <td><b>156.00</b></td> </tr> </table> </td> </tr> <tr> <td colspan="4" style="padding: 5px;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>84</td><td>202</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>280</td><td>204</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>84</td><td>209</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (3)</b></td><td><b>0.00</b></td></tr> </tbody> </table> </td> <td colspan="2" style="padding: 5px;"> <b>2. SUBTOTAL (3)</b> (\$)<b>0.00</b>          *Reduced by Basic Filing Fee Paid       </td> </tr> <tr> <td colspan="4" style="padding: 5px;"><b>SUBMITTED BY</b></td> <td colspan="2" style="padding: 5px;"><b>Complete (if applicable)</b></td> </tr> <tr> <td colspan="4" style="padding: 5px;">Name (Print/Type) <b>Mark J. Hyman</b></td> <td colspan="2" style="padding: 5px;">Registration No. <b>46,789</b></td> </tr> <tr> <td colspan="4" style="padding: 5px;">Signature </td> <td colspan="2" style="padding: 5px;">Telephone <b>(240) 314-1224</b></td> </tr> <tr> <td colspan="4" style="padding: 5px;"></td> <td colspan="2" style="padding: 5px;">Date <b>March 7, 2002</b></td> </tr> </tbody> </table>		Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	105	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for ex parte reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner action		113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action		115	110	215	55	Extension for reply within first month		116	400	216	200	Extension for reply within second month		117	920	217	460	Extension for reply within third month		118	1,440	218	720	Extension for reply within fourth month		128	1,960	228	980	Extension for reply within fifth month		119	320	219	160	Notice of Appeal		120	320	220	160	Filing a brief in support of an appeal		121	280	221	140	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive - unavoidable		141	1,280	241	640	Petition to revive - unintentional		142	1,280	242	640	Utility issue fee (or reissue)		143	460	243	230	Design issue fee		144	620	244	310	Plant issue fee		122	130	122	130	Petitions to the Commissioner		123	50	123	50	Processing fee under 37 CFR 1.17(q)		126	180	126	180	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment per prooerty (times number of prooerties)		146	740	246	370	Filing a submission after final rejection (37 CFR 1.129(a))		149	740	249	370	For each additional invention to be examined (37CFR 1.129(h))		179	740	279	370	Request for Continued Examination (RCE)		169	900	169	900	Request for expedited examination of a design application		Other fee (specify) _____						<b>1. BASIC FILING FEE</b>				<b>2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>101</td><td>740</td><td>201</td><td>370</td><td>Utility filing fee</td><td>740.00</td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>510</td><td>207</td><td>255</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>740</td><td>208</td><td>370</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>160</td><td>214</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (1)</b></td><td><b>740.00</b></td></tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	101	740	201	370	Utility filing fee	740.00	106	330	206	165	Design filing fee		107	510	207	255	Plant filing fee		108	740	208	370	Reissue filing fee		114	160	214	80	Provisional filing fee		<b>SUBTOTAL (1)</b>					<b>740.00</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Total Claims</td> <td>24</td> <td>-20** =</td> <td>4</td> <td>x</td> <td>18.00</td> <td>=</td> <td>72.00</td> </tr> <tr> <td>Independent Claims</td> <td>4</td> <td>-3** =</td> <td>1</td> <td>x</td> <td>84.00</td> <td>=</td> <td>84.00</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>=</td> <td></td> </tr> <tr> <td colspan="7" style="text-align: right;"><b>SUBTOTAL (2)</b></td> <td><b>156.00</b></td> </tr> </table>		Total Claims	24	-20** =	4	x	18.00	=	72.00	Independent Claims	4	-3** =	1	x	84.00	=	84.00	Multiple Dependent						=		<b>SUBTOTAL (2)</b>							<b>156.00</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>84</td><td>202</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>280</td><td>204</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>84</td><td>209</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (3)</b></td><td><b>0.00</b></td></tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	103	18	203	9	Claims in excess of 20		102	84	202	42	Independent claims in excess of 3		104	280	204	140	Multiple dependent claim, if not paid		109	84	209	42	** Reissue independent claims over original patent		110	18	210	9	** Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (3)</b>					<b>0.00</b>	<b>2. SUBTOTAL (3)</b> (\$) <b>0.00</b> *Reduced by Basic Filing Fee Paid		<b>SUBMITTED BY</b>				<b>Complete (if applicable)</b>		Name (Print/Type) <b>Mark J. Hyman</b>				Registration No. <b>46,789</b>		Signature 				Telephone <b>(240) 314-1224</b>						Date <b>March 7, 2002</b>	
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																																																																																																																																																																																																
105	130	205	65	Surcharge - late filing fee or oath																																																																																																																																																																																																																																																																																																																																																															
127	50	227	25	Surcharge - late provisional filing fee or cover sheet																																																																																																																																																																																																																																																																																																																																																															
139	130	139	130	Non-English specification																																																																																																																																																																																																																																																																																																																																																															
147	2,520	147	2,520	For filing a request for ex parte reexamination																																																																																																																																																																																																																																																																																																																																																															
112	920*	112	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																																																																																																																																																																																																															
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action																																																																																																																																																																																																																																																																																																																																																															
115	110	215	55	Extension for reply within first month																																																																																																																																																																																																																																																																																																																																																															
116	400	216	200	Extension for reply within second month																																																																																																																																																																																																																																																																																																																																																															
117	920	217	460	Extension for reply within third month																																																																																																																																																																																																																																																																																																																																																															
118	1,440	218	720	Extension for reply within fourth month																																																																																																																																																																																																																																																																																																																																																															
128	1,960	228	980	Extension for reply within fifth month																																																																																																																																																																																																																																																																																																																																																															
119	320	219	160	Notice of Appeal																																																																																																																																																																																																																																																																																																																																																															
120	320	220	160	Filing a brief in support of an appeal																																																																																																																																																																																																																																																																																																																																																															
121	280	221	140	Request for oral hearing																																																																																																																																																																																																																																																																																																																																																															
138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																																																																																																																																																																																																															
140	110	240	55	Petition to revive - unavoidable																																																																																																																																																																																																																																																																																																																																																															
141	1,280	241	640	Petition to revive - unintentional																																																																																																																																																																																																																																																																																																																																																															
142	1,280	242	640	Utility issue fee (or reissue)																																																																																																																																																																																																																																																																																																																																																															
143	460	243	230	Design issue fee																																																																																																																																																																																																																																																																																																																																																															
144	620	244	310	Plant issue fee																																																																																																																																																																																																																																																																																																																																																															
122	130	122	130	Petitions to the Commissioner																																																																																																																																																																																																																																																																																																																																																															
123	50	123	50	Processing fee under 37 CFR 1.17(q)																																																																																																																																																																																																																																																																																																																																																															
126	180	126	180	Submission of Information Disclosure Stmt																																																																																																																																																																																																																																																																																																																																																															
581	40	581	40	Recording each patent assignment per prooerty (times number of prooerties)																																																																																																																																																																																																																																																																																																																																																															
146	740	246	370	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																																																																																																																																																																																																															
149	740	249	370	For each additional invention to be examined (37CFR 1.129(h))																																																																																																																																																																																																																																																																																																																																																															
179	740	279	370	Request for Continued Examination (RCE)																																																																																																																																																																																																																																																																																																																																																															
169	900	169	900	Request for expedited examination of a design application																																																																																																																																																																																																																																																																																																																																																															
Other fee (specify) _____																																																																																																																																																																																																																																																																																																																																																																			
<b>1. BASIC FILING FEE</b>				<b>2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE</b>																																																																																																																																																																																																																																																																																																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>101</td><td>740</td><td>201</td><td>370</td><td>Utility filing fee</td><td>740.00</td></tr> <tr><td>106</td><td>330</td><td>206</td><td>165</td><td>Design filing fee</td><td></td></tr> <tr><td>107</td><td>510</td><td>207</td><td>255</td><td>Plant filing fee</td><td></td></tr> <tr><td>108</td><td>740</td><td>208</td><td>370</td><td>Reissue filing fee</td><td></td></tr> <tr><td>114</td><td>160</td><td>214</td><td>80</td><td>Provisional filing fee</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (1)</b></td><td><b>740.00</b></td></tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	101	740	201	370	Utility filing fee	740.00	106	330	206	165	Design filing fee		107	510	207	255	Plant filing fee		108	740	208	370	Reissue filing fee		114	160	214	80	Provisional filing fee		<b>SUBTOTAL (1)</b>					<b>740.00</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Total Claims</td> <td>24</td> <td>-20** =</td> <td>4</td> <td>x</td> <td>18.00</td> <td>=</td> <td>72.00</td> </tr> <tr> <td>Independent Claims</td> <td>4</td> <td>-3** =</td> <td>1</td> <td>x</td> <td>84.00</td> <td>=</td> <td>84.00</td> </tr> <tr> <td>Multiple Dependent</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>=</td> <td></td> </tr> <tr> <td colspan="7" style="text-align: right;"><b>SUBTOTAL (2)</b></td> <td><b>156.00</b></td> </tr> </table>		Total Claims	24	-20** =	4	x	18.00	=	72.00	Independent Claims	4	-3** =	1	x	84.00	=	84.00	Multiple Dependent						=		<b>SUBTOTAL (2)</b>							<b>156.00</b>																																																																																																																																																																																																																																																																																
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																																																																																																																																																																																																
101	740	201	370	Utility filing fee	740.00																																																																																																																																																																																																																																																																																																																																																														
106	330	206	165	Design filing fee																																																																																																																																																																																																																																																																																																																																																															
107	510	207	255	Plant filing fee																																																																																																																																																																																																																																																																																																																																																															
108	740	208	370	Reissue filing fee																																																																																																																																																																																																																																																																																																																																																															
114	160	214	80	Provisional filing fee																																																																																																																																																																																																																																																																																																																																																															
<b>SUBTOTAL (1)</b>					<b>740.00</b>																																																																																																																																																																																																																																																																																																																																																														
Total Claims	24	-20** =	4	x	18.00	=	72.00																																																																																																																																																																																																																																																																																																																																																												
Independent Claims	4	-3** =	1	x	84.00	=	84.00																																																																																																																																																																																																																																																																																																																																																												
Multiple Dependent						=																																																																																																																																																																																																																																																																																																																																																													
<b>SUBTOTAL (2)</b>							<b>156.00</b>																																																																																																																																																																																																																																																																																																																																																												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Large Entity</th> <th colspan="2">Small Entity</th> <th rowspan="2">Fee Description</th> <th rowspan="2">Fee Paid</th> </tr> <tr> <th>Fee Code</th> <th>Fee (\$)</th> <th>Fee Code</th> <th>Fee (\$)</th> </tr> </thead> <tbody> <tr><td>103</td><td>18</td><td>203</td><td>9</td><td>Claims in excess of 20</td><td></td></tr> <tr><td>102</td><td>84</td><td>202</td><td>42</td><td>Independent claims in excess of 3</td><td></td></tr> <tr><td>104</td><td>280</td><td>204</td><td>140</td><td>Multiple dependent claim, if not paid</td><td></td></tr> <tr><td>109</td><td>84</td><td>209</td><td>42</td><td>** Reissue independent claims over original patent</td><td></td></tr> <tr><td>110</td><td>18</td><td>210</td><td>9</td><td>** Reissue claims in excess of 20 and over original patent</td><td></td></tr> <tr><td colspan="5" style="text-align: right;"><b>SUBTOTAL (3)</b></td><td><b>0.00</b></td></tr> </tbody> </table>				Large Entity		Small Entity		Fee Description	Fee Paid	Fee Code	Fee (\$)	Fee Code	Fee (\$)	103	18	203	9	Claims in excess of 20		102	84	202	42	Independent claims in excess of 3		104	280	204	140	Multiple dependent claim, if not paid		109	84	209	42	** Reissue independent claims over original patent		110	18	210	9	** Reissue claims in excess of 20 and over original patent		<b>SUBTOTAL (3)</b>					<b>0.00</b>	<b>2. SUBTOTAL (3)</b> (\$) <b>0.00</b> *Reduced by Basic Filing Fee Paid																																																																																																																																																																																																																																																																																																																	
Large Entity		Small Entity		Fee Description	Fee Paid																																																																																																																																																																																																																																																																																																																																																														
Fee Code	Fee (\$)	Fee Code	Fee (\$)																																																																																																																																																																																																																																																																																																																																																																
103	18	203	9	Claims in excess of 20																																																																																																																																																																																																																																																																																																																																																															
102	84	202	42	Independent claims in excess of 3																																																																																																																																																																																																																																																																																																																																																															
104	280	204	140	Multiple dependent claim, if not paid																																																																																																																																																																																																																																																																																																																																																															
109	84	209	42	** Reissue independent claims over original patent																																																																																																																																																																																																																																																																																																																																																															
110	18	210	9	** Reissue claims in excess of 20 and over original patent																																																																																																																																																																																																																																																																																																																																																															
<b>SUBTOTAL (3)</b>					<b>0.00</b>																																																																																																																																																																																																																																																																																																																																																														
<b>SUBMITTED BY</b>				<b>Complete (if applicable)</b>																																																																																																																																																																																																																																																																																																																																																															
Name (Print/Type) <b>Mark J. Hyman</b>				Registration No. <b>46,789</b>																																																																																																																																																																																																																																																																																																																																																															
Signature 				Telephone <b>(240) 314-1224</b>																																																																																																																																																																																																																																																																																																																																																															
				Date <b>March 7, 2002</b>																																																																																																																																																																																																																																																																																																																																																															

\*\*or number previously paid, if greater; For Reissues, see above

VIA HAND DELIVERY MARCH 7, 2002

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Rosen et al.

Attorney Docket No.: PC009C1

Application Serial No.: Not Yet Assigned

Art Unit: Not Yet Assigned

Filed: Herewith

Examiner: Not Yet Assigned

Title: Nucleic Acids, Proteins, and Antibodies

**STATEMENT UNDER 37 C.F.R. § 1.821**

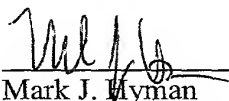
Commissioner for Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 C.F.R. § 1.821(f), Applicants hereby certify that the sequence listing information recorded in computer readable form and submitted herewith is identical to the written (on compact disc) Sequence Listing submitted herewith.

Respectfully submitted,

Dated: March 7, 2002



Mark J. Hyman  
Attorney for Applicants

Reg. No. 46,789

**Human Genome Sciences, Inc.**  
9410 Key West Avenue  
Rockville, MD 20850  
Telephone: (240) 314-1224

Enclosures

202004070001

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application of: Rosen et al.

Attorney Docket No.: PC009C1

Application Serial No.: Not Yet Assigned

Art Unit: Not Yet Assigned

Filed: Herewith

Examiner: Not Yet Assigned

Title: Nucleic Acids, Proteins, and Antibodies

**TRANSMITTAL AND SUBMISSION UNDER  
37 C.F.R. §§ 1.824 AND 1.52(e)**

Commissioner for Patents  
Washington, D.C. 20231

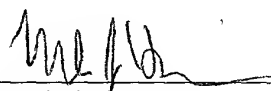
Sir:

In accordance with 37 C.F.R. §§ 1.821(e) and 1.824, Applicants submit herewith a Sequence Listing satisfying the computer readable format requirements on a compact disc (CD-R) labeled "CRF." Applicants submit concurrently herewith a Statement Under 37 C.F.R. § 1.821.

Additionally, in accordance with 37 C.F.R. §§ 1.52(e), 1.821, and 1.823, Applicants submit herewith a Sequence Listing as an electronic document on two identical compact discs (CD-R). Applicants certify under 37 C.F.R. § 1.52(e)(4) that these two compact discs, labeled "Copy 1" and "Copy 2," are identical. These compact discs, formatted for an IBM-PC machine and compatible with the MS-Windows operating system, each contain the file "PC009C1\_seqList.txt" (4,095,326 bytes in size, created March 6, 2002).

Respectfully submitted,

Dated: March 7, 2002



Mark J. Hyman  
Attorney for Applicants

Reg. No. 46,789

**Human Genome Sciences, Inc.**  
9410 Key West Avenue  
Rockville, MD 20850  
Telephone: (240) 314-1224

Enclosures